

## EVALUATION OF PROLENE MESH AS A TRANS-OBTURATOR TAPE FOR TREATMENT OF FEMALE STRESS URINARY INCONTINENCE.

### Hypothesis / aims of study

I tried to correct female stress urinary incontinence using a more economic tape utilizing the new techniques to help poor health resources. I sought to determine the short term efficacy, safety and urodynamic effects of the use of prolene mesh as a suburethral sling passed through the obturator foramen (using a specially designed needle) in treating female stress urinary incontinence.

### Study design, materials and methods

This is a prospective clinical study started since January 2007 until now. Forty patients with stress urinary incontinence (10 with pure ISD, 25 %, & 30 with mixed ISD & hypermobility, 75 %) underwent Prolene mesh suburethral sling (Prolene; Ethicon Ltd UK). Preoperative evaluation consisted of history, voiding diary, examination, ascending cystography, conventional urodynamic studies, and routine laboratory investigations. Prolene mesh was cut into a tape measuring 10x1.5 cm and sterilized by autoclave. The mesh was placed at the mid-urethra and passed through the obturator foramen (outside - in) by Vicryl sutures loaded on a curved needle (which was specially designed to hold the suture). The mesh was anchored to the subcutaneous tissue at lateral edge of labia majora by Vicryl sutures. Patients were followed (for a mean of 19 months) by history, examination, urine analysis, pelvic ultrasound to detect residual urine, and conventional urodynamic evaluation at 3 months post-operatively.

### Results

All procedures were completed with no intraoperative complications, no failures or recurrences of stress incontinence. At one month follow up, one patient (2.5 %) developed small erosion (< 1 cm) of the anterior vaginal wall associated with lower abdominal pain, urgency, urethral pain and urinary tract infection. This was managed conservatively by antibiotics and local estrogen cream. At three months follow up, erosion healed completely. Four patients (10%) complained from urge incontinence (which was present preoperatively) and was managed with an anticholinergic that lead to symptom improvement.

### Interpretation of results

Using prolene mesh as a suburethral sling via the obturator foramen did not lead to overcorrection due to the straight track that it takes under the urethra. Erosion of either the urethra or anterior vaginal wall depends on the presence of overcorrection & the improper plane of dissection either towards the urethra or the vagina.

### Concluding message

Preliminary results in our institution showed that suburethral transobturator prolene mesh sling is safe, efficient, reproducible and a low cost technique for treatment of stress urinary incontinence. Complications exist but can be successfully managed.

<b><i>Specify source of funding or grant</i></b>	<b>Government</b>
<b><i>Is this a clinical trial?</i></b>	<b>Yes</b>
<b><i>Is this study registered in a public clinical trials registry?</i></b>	<b>No</b>
<b><i>What were the subjects in the study?</i></b>	<b>HUMAN</b>
<b><i>Was this study approved by an ethics committee?</i></b>	<b>Yes</b>
<b><i>Specify Name of Ethics Committee</i></b>	<b>Local Ethics Committee at Bani Sweif University.</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
<b><i>Was informed consent obtained from the patients?</i></b>	<b>Yes</b>